

Price Competition with Repeat, Loyal Buyers⁸

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Many empirical studies have established that state dependence varies across consumers, brands, and categories. Previous analytic models have assumed that state dependence is a customer characteristic that does not vary across firms. In contrast, we take the view that state dependence varies by firm. That is, a well-known national brand, such as Tide detergent, may be able to attract more repeat, loyal buyers than a lesser-known rival brand. While this view of state dependence is supported by empirical research (Van Oest and Frances 2003), it has not been previously considered in analytic models.

Importantly, we show a firm's relative ability to attract repeat, loyal buyers has surprising implications for firms' pricing strategies. We show that this single effect can explain why leading brands such as Parkay and Peter Pan may offer both the lowest average price and the most frequent promotions. For managers, this result shows that frequent, deep promotions may be optimal to maintaining a dominant market position. In this sense, we identify an alternative pricing strategy that a manager should consider to build and maintain a leading brand. While a strategy of low prices and frequent promotions is not always profitable, our model identifies conditions under which this strategy is optimal.

We also find that profits of a firm may increase when a weak competitor gets stronger i.e. is able to attract more repeat, loyal buyers. This shows that if a firm becomes weaker it may lower the price of all firms and erode industry profits. An implication for managers is that a leading brand must be cautious using tactics that weaken a rival as this may lead to the unexpected consequence of lower industry prices and profits for both firms.

Our findings on price correlations complement extant theoretical research on price promotions and price cycles. Consistent with this literature, we show that strong firms exhibit high-low pricing or negative serial price correlation. However, strategic price effects may lead a weak competitor to mimic the behavior of the strong firm, which may lead to both positive serial and contemporaneous price correlations. We note that these findings are entirely due to competitive effects; in the absence of competition, a weak firm would exhibit negative serial price correlation. For practitioners, these results show when it is optimal for a weaker brand to mimic a stronger rival's pricing strategy. If the firms are sufficiently asymmetric in their ability to attract repeat, loyal buyers then mimicry of the competitor's pricing strategy is optimal.

This paper incorporates consumer dynamics that are well-established in empirical marketing studies. The model allows us to highlight how firms' ability to attract repeat, loyal buyers affects pricing strategies and profits. Reassuringly, there is consistency between model predictions and extant empirical findings, but additional empirical research is required to formally test these predictions.

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